

MSC Guidelines for Review of Subchapter K Emergency Evacuation Plans

Procedure Number: H2-15

Revision Date: 12/22/99

References

46 CFR 116, Subpart E, "Escape and Embarkation Station Requirements"

Disclaimer

These guidelines were developed by the Marine Safety Center staff as an aid in the preparation and review of vessel plans and submissions. They were developed to supplement existing guidance. They are not intended to substitute or replace laws, regulations, or other official Coast Guard policy guidance. The responsibility to demonstrate compliance with all applicable laws and regulations still rests with the plan submitter. The Coast Guard and the U. S. Department of Transportation expressly disclaim liability resulting from the use of this document.

Contact Information

If you have any questions or comments concerning this document, please contact the Marine Safety Center by e-mail or phone. Please refer to the Procedure Number: H2-15

E-mail: customerservicemsc@msc.uscg.mil

Phone: 202-366-6480.

General Review Guidance

Means of Escape

Ensure the EEP designates at least two embarkation stations on the embarkation deck of each MVZ, and at least one on each side of the vessel. [46 CFR 116.510(a)]

Identify all possible casualties involving fires or flooding, including a fire in the largest passenger space in each MVZ on the EEP, and ensure they are included in the plan. [46 CFR 116.520(a)]

- ❑ Identification of possible casualties can be as simple as a fire on Deck X, MVZ Y.
- ❑ Identification of flooding casualties is only necessary if flooding will affect passenger occupied spaces.

Each level of a space containing a balcony must have two independent means of escape. [46 CFR 116.439(b)]

MSC Guidelines for Review of Subchapter K Emergency Evacuation Plans

Procedure Number: H2-15

Revision Date: 12/22/99

Ensure the EEP includes procedures to evacuate passengers from the vessel using an abandon ship plan. The plan must indicate at least one escape route from each area of refuge to each embarkation station. [46 CFR 116.520(c)]

Ensure the EEP identifies at least two means of escape from each space. [46 CFR 114.400, 46 CFR 116.500(a) & 46 CFR 116.520(b)(2)]

- ❑ At least one means from each space must not be a watertight door. [46 CFR 116.500(a)]
- ❑ The two required means for each space must be widely separated and, if possible, at opposite ends or sides. [46 CFR 116.500(b)]
- ❑ Ladders leading to deck scuttles may not be included as a means of escape except as permitted by 46 CFR 116.500(k).
- ❑ Windows may only be included as one of the means of escapes as permitted by 46 CFR 116.500(o).
- ❑ The following spaces are not permitted to be used as means of escape:
 - ❑ Service spaces
 - ❑ Cargo spaces
 - ❑ Machinery & Auxiliary spaces
 - ❑ Control spaces
 - ❑ Rest rooms
 - ❑ Barber shops & Sales rooms
 - ❑ Hazardous areas
 - ❑ Escalators & elevators

Only one means of escape is required for certain spaces iaw 46 CFR 116.500(p).

Ensure the dimensions of the means of escape from each space are sufficient for the number of persons served. [46 CFR 116.500(d)]

- ❑ The minimum clear opening of a door or passageway used by passengers must not be less than 32 inches (28 inches if used solely by the crew). [46 CFR 116.500(f)]
- ❑ The sum of the width of all doors and passageways used as a means of escape from each space must not be less than 0.333 inches multiplied by the number of persons for which the space is designed. [46 CFR 116.500 (f)]

Examine the length of escape passages:

- ❑ Ensure no dead end passageways extend more than 20 feet in length. [46 CFR 116.500(g)]
- ❑ The maximum allowable travel distance from the most remote point in a space to the nearest exit must be less than 150 feet. [46 CFR 116.500(h)]

MSC Guidelines for Review of Subchapter K Emergency Evacuation Plans

Procedure Number: H2-15

Revision Date: 12/22/99

Space Capacity

Ensure the number of persons indicated for each space served is iaw 46 CFR 116.438(n)(2), i.e.:

- ❑ Maximum seating for spaced with fixed seating, or
- ❑ Designed capacity for overnight accommodations, or
- ❑ One person for each 10 square feet of deck area.

If applicable, ensure the effect of inclement weather on passenger capacity has been addressed..

Ensure the EEP identifies enough readily accessible areas of refuge for the maximum number of persons on board. [46 CFR 116.520(b)(1)]

- ❑ Occupancy may not exceed one person for each 3 square feet of deck area. [46 CFR 116.438(n)(2) & 46 CFR 116.520(b)(1)]
 - ❑ If applicable, ensure the effect of inclement weather on exposed areas of refuge has been addressed.
-

Stairs

Each MVZ with more than two deck levels, each having enclosed or partially enclosed accommodation spaces, other than rest rooms and open decks, must be served by at least one stairtower. [46 CFR 116.438(m)(1)]

Each stairtower must give access to an embarkation station or an area of refuge. [46 CFR 116.438(m)(2)]

Stairtowers may not directly access category 9, 10, 11 or 12 spaces. [46 CFR 116.438(m)(3)]

A stairtower is not required to extend below deck to serve spaces in which a fire is likely to originate if one of the means of escape is:

- ❑ A stairway leading directly to weather, or
- ❑ A stairway, with self-closing doors top and bottom, leading to the stairtower. [46 CFR 116.438(m)(4)]

For vessels in which a stairtower is not required, a stairway must provide a means of escape for each deck of the MVZ. [46 CFR 116.438(m)(6)]

MSC Guidelines for Review of Subchapter K Emergency Evacuation Plans

Procedure Number: H2-15

Revision Date: 12/22/99

Ensure stairways and stairtowers are properly sized. [46 CFR 116.438(n)]

- ❑ The minimum tread width of a stairway or stairtower must be 0.333 inches for each person served, but must not be less than 36 inches. [46 CFR 116.438(n)]
- ❑ The minimum tread width of a stairway or stairtower is determined for each deck considering only those persons on that deck. [46 CFR 116.438(n)(1)]
- ❑ Once a minimum tread width is established it must not be decreased in the direction of escape. [46 CFR 116.438(n)(1)]
- ❑ If more than one stairtower serves a MVZ, the number of persons in that zone may be distributed among the stairtowers.